

Application No. 10/660,297
Responsive to the Office Action of November 8, 2006

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REMARKS

This application is under final rejection. Applicant has presented amendments that Applicant believes should render the claims allowable. In the event, however, that the Examiner is not persuaded by Applicant's amendments, Applicant respectfully requests that the Examiner enter the amendments to clarify issues upon appeal. The status of the claims is as follows:

- a. **Claims 1-11, 13-20 and 22-24 are Pending** in the present application.
- b. **Claims 12 and 21** have been amended for clarification.
- c. **Claims 23 and 24** are canceled.
- d. **Claims 1-11, 13-20 and 22-24** are rejected.

No new matter was introduced with this amendment.

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i. ARGUMENT

a. Objections of Claims 12 and 21

Applicant asserts that claims 12 and 21 have been amended to correct the cited informalities. The Examiner's cited objections should therefore be withdrawn.

b. Rejections of Claims 23-24 under 35 U.S.C. §102(a)

The Applicant respectfully asserts that Claims 23-24 are canceled with this amendment. Consequently, the Examiner's cited rejections should therefore be withdrawn.

c. Rejections of Claims 1-10, 13-19 and 22 under 35 U.S.C. §103(a)

When making an obvious rejection under 35 U.S.C. § 103, a necessary condition is that the combination of the cited references must teach or suggest all claim limitations. If the cited references do not teach or suggest every element of the claimed invention, then the cited references fail to render obvious the claimed invention, i.e. the claimed invention is distinguishable over the combination of the cited references.

The Examiner asserts that the present invention is obvious based on *Hong et al.* in view of *Min et al.* *Hong et al.* discloses an apparatus and a method for reproducing data using capacitance. The apparatus includes a tip, a cantilever, a positioning portion, a power supply, an electrostatic force measuring portion, and a controller. The tip contacts a recording medium on which data is recorded by a bit. The cantilever is made of conductive material and has a free end for supporting the tip. The positioning

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portion moves the cantilever so as to determine a position of the tip on the recording medium.

Min et al. discloses a data storage apparatus adopting a time division multiplexing technique, and a data recording method and a data reproduction method both using the apparatus, are provided. In the data storage apparatus, a recording medium stores data, and a stage supports the recording medium. A scanner drives the stage, and a cantilever array composed of a plurality of cantilevers record data to and reproducing data from the recording medium in a data detecting sequence. A controller detects data by applying a scanner driving signal to the scanner and applying a voltage signal for data recording or a voltage modulation signal for data reproduction to the plurality of cantilevers.

The Examiner concedes that *Hong et al.* does not expressly disclose the limitation of "...wherein a first capacitance is formed on a first side of the suspension mechanism and a second capacitance is formed on a second side of the suspension mechanism..." as recited in amended independent claims 1 and 13. The Examiner then asserts that *Min et al.* discloses forming a capacitance on both sides of the cantilever. Accordingly, since *Hong et al.* and *Min et al.* are analogous art, it would have been obvious to one skilled in the art at the time of the invention to combine *Hong et al.* with *Min et al.* to arrive at the Applicant's recited invention of claims 1 and 13.

Applicant argued in the response filed August 30, 2006, that Min does not teach forming a first capacitance on a first side of the suspension mechanism and forming a second capacitance on a second side of the suspension mechanism. However, the Examiner argues in the final office action dated November 8, 2006 that the claimed

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invention is believed to read on the *Min et al.* reference. Applicant respectfully disagrees.

The Examiner stipulates that since a capacitance is formed on either of a supporter **12** (either end of the cantilever **8**) the *Min et al.* reference discloses forming a first capacitance on a first side of the suspension mechanism and forming a second capacitance on a second side of the suspension mechanism. (See Exhibit A.) Applicant respectfully disagrees and asserts that the *Min et al.* reference discloses a first capacitance is formed on a first side of a **supporter** and a second capacitance is formed on a second side of a **supporter**. A supporter as disclosed in the *Min et al.* reference, is clearly different from a suspension mechanism, as recited in independent claims 1 and 13. Applicant accordingly asserts that a first capacitance formed on a first side of a **supporter** and a second capacitance formed on a second side of a **supporter** is clearly different then a first capacitance is formed on a first side of a **suspension mechanism** and a second capacitance is formed on a second side of a **suspension mechanism** as recited in independent claims 1 and 13. Consequently, *Hong et al.* in combination with the *Min et al.* does not teach or suggest all of the claim limitations of the independent claims 1 and 13. Accordingly, independent claims 1 and 13 are allowable over the *Hong et al.* reference in view of the *Min et al.* reference.

Claims 2-10, 12 and Claims 14-19, 21-22 respectively depend from independent **Claims 1 and 13** and inherit all of their limitations. Therefore, **Claims 2-10, 12 and Claims 14-19, 21-22** are patentably distinct in view of *Hong et al.* in combination with the *Min et al.* and the rejections of **Claims 2-10, 12 and Claims 14-19, 21-22** under 35 U.S.C. §103(a) ought to now be withdrawn.

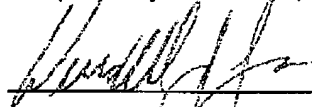
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ii. **CONCLUSION**

Applicant believes that this application is in condition for allowance. Accordingly, Applicant respectfully requests reconsideration, allowance and passage to issue of the claims as now presented. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,



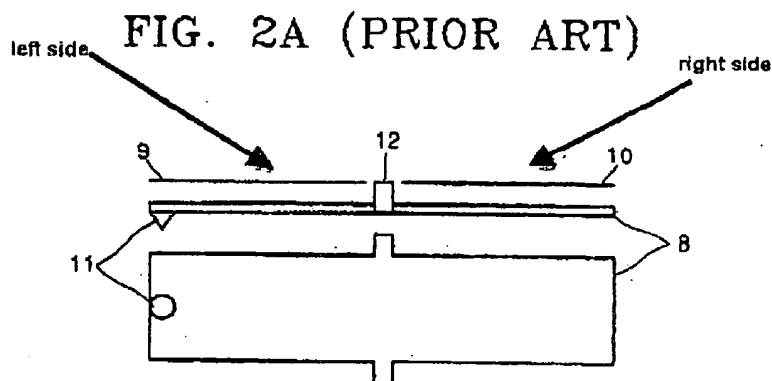
Wendell J. Jones

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[0011] Referring to FIG. 2A, the center of a conventional differential cantilever 8 with a tip 11 is supported by a supporter 12, a cantilever portion on the left side of the supporter 12 forms a capacitor together with an electrode 9, and a cantilever portion on the right side of the supporter 12 forms a capacitor together with an electrode 10. As the conventional differential cantilever 8 is supported at its center by the supporter 12, it records and reproduces data while one end having the tip 11 descends by lifting the other end.



For the aforementioned reasons the rejection has been maintained and is deemed proper.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sakai et al. (USPN 5,329,122) teaches a information processing apparatus and scanning tunnel microscope, Kuroda et al. (USPN 5,546,374) teaches a information recording and/or reproducing apparatus and probe, Azuma et al. (USPN 6,477,132) teaches a probe and information recording/reproduction apparatus using the

Exhibit A